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Patent
10007744-1

REMARKS

Claims 1-3, 5, and 21-25 remain pending in this application, after entry of this amendment. Reconsideration in light of the amendments and remarks made herein is respectfully requested.

Rejection of Claims 1-5, and 21-26 Under 35 U.S.C. § 103(a)

Claims 1-3, 5, and 21-22 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Hostetler* (U.S. Patent No. 6,675,476, hereinafter *Hostetler*) in view of *Wong et al.* (U.S. Patent No. 5,211,806, hereinafter *Wong*). Claim 4 was rejected under 35 U.S.C. § 103(a) as being unpatentable over *Hostetler* in view of *Kawamura et al.* (U.S. Patent No. 6,543,884, hereinafter *Kawamura*). Claims 23-26 were rejected under 35 U.S.C. § 102(b) as being anticipated by *Hostetler*. Applicant respectfully traverses.

Independent Claims 1, 3, 5, and 23

Independent claims 1, 3, 5, and 23 have been amended to recite a method of etching a substrate surface comprising providing a silicon oxide hard mask on the substrate surface by masking a first portion of the substrate surface with a layer of phosphosilicate glass. In order to create a silicon oxide hard mask, the phosphosilicate glass layer must contact the substrate surface. This silicon oxide hard mask resists the silicon etchant and serves as a secondary hard mask to the primary hard mask provided by the passivation layer.

The Examiner points out that *Hostetler* fails to disclose this feature (Office Action, page 5, lines 19-20). Neither *Wong* nor *Kawamura* remedy this deficiency.

The Examiner points out that *Wong* illustrates deposition of a metal layer over an entire top surface of a passivation material is known (Office Action, page 5, lines 11-12). However, *Wong* fails to disclose anything about providing a silicon oxide hard mask on the substrate surface by masking a first portion of the substrate surface with a layer of phosphosilicate glass.

The Examiner then points out that *Kawamura* illustrates the step of underlying the passivation material with a layer of phosphosilicate glass at locations near the boundaries (Office Action, page 6, lines 7-8). However, *Kawamura* fails to disclose anything about

providing a silicon oxide hard mask on the substrate surface by masking a first portion of the substrate surface with a layer of phosphosilicate glass as recited in claims 1, 3, 5, and 23. *Kawamura* discloses that a phosphosilicate glass layer 42, having a thickness of 0.5 microns, is then applied over the layer of oxide 40, but does not disclose depositing a layer of phosphosilicate glass onto the substrate surface. (*Kawamura*, column 4, lines 27-29 and figure 10A). Figure 10A shows that the phosphosilicate glass layer 42 does not contact the substrate surface.

Therefore, in view of the above arguments, claims 1, 3, 5, and 23 are patentable over *Hostetler* in view of *Wong* or *Kawamura*.

Dependent Claims 2, 21-22, and 24-25

Claims 2 and 21-22 depend from claim 1 and claims 24-25 depend from claim 23, adding structural features that more particularly define the invention and further distinguish over the cited references and prior art of record and are patentable for the same reasons. Applicant respectfully requests that this rejection be withdrawn.

Dependent Claims 4 and 26

Applicant has canceled claims 4 and 26 without prejudice. Applicant reserves the right to file a continuation application on these canceled claims.

Rejection of Claims 11-14 Under 35 U.S.C. § 102(b)

Claims 11-14 were rejected under 35 U.S.C. § 102(b) as being anticipated by *Hostetler*. Applicant has canceled claims 11-14 without prejudice. Applicant reserves the right to file a continuation application on this canceled claim.

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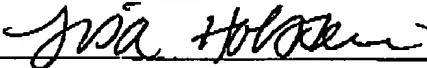
CONCLUSION

In view of the remarks above, it is respectfully submitted that all the pending claims are in condition for allowance, and such action is earnestly solicited.

If the Examiner believes an interview would be helpful to advance this case, she is invited to contact the undersigned attorney.

I hereby certify that this correspondence is being facsimile transmitted to (571) 273-8300, Commissioner for Patents, on June 14, 2006.

By: Lisa Holstein



: Signature

Dated: June 14, 2006

Very truly yours,

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